

毛豆種子大小與包裝方式對貯藏期間

種子活力之影響

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本試驗採用毛豆品種高雄選一號、高雄五號春作種子為材料，種子調製後高雄選一號依種子粒徑大小分成 8.5mm、8.0mm、7.1mm，高雄五號分 9.5mm、9.0mm、8.0mm 等各三級，並以真空與普通 PE 袋兩種包裝方式貯藏於 5°C 冷藏庫中，隔月取樣調查種子之活力與幼苗生育。試驗結果得知粒徑大小與種子萌芽率無顯著之關係，但幼苗株高受粒徑大小之影響因品種而異，幼苗乾物重隨粒徑增加而提高(表 1,2,3,4.)。另外真空包裝與普通 PE 袋密封包裝對種子萌芽率、平均萌芽日數、幼苗高及苗乾物重無明顯的影響，此可能低溫環境的影響。

表 1. 高雄選一號室內種子發芽與幼苗性狀顯著性差異比較

Table 1. Significant difference compared on seeds emergence and seedling characters of vegetable soybean cultivar kaohsiung select No.1 in the room test.

Item	emergence rate			mean days			height of seedling			dry weight		
	%	LSD	5%	emergence	LSD	5%	cm	LSD	5%	seedling	gr	LSD
month	8.5	8.0	7.1	8.5	8.0	7.1	8.5	8.0	7.1	8.5	8.0	7.1
4	65.0	72.0	73.0	7.51	1.99	1.95	2.14	0.36	16.4	17.7	17.6	2.06
6	52.0	65.6	75.3	11.46	2.43	3.12	3.28	0.44	9.17	9.73	9.51	1.46
8	59.3	52.3	62.0	13.05	3.05	2.57	3.06	0.73	10.37	11.42	10.28	0.90
10	56.0	67.0	76.0	9.04	1.82	2.21	2.27	0.38	14.88	14.50	15.15	1.28
12	63.3	54.6	60.3	11.04	1.78	1.44	1.62	0.30	21.95	22.45	18.87	1.20

表 2. 高雄選一號田間種子發芽與幼苗性狀顯著性差異比較

Table 2. Significant difference compared on seeds emergence and seedling characters of vegetable soybean cultivar kaohsiung select No.1 in the field test.

Item	emergence rate			mean days			height of seedling			dry weight		
	(%)	LSD	5%	emergence	LSD	5%	seedling	LSD	5%	seedling	gr	LSD
month	8.5	8.0	7.1	8.5	8.0	7.1	cm	LSD	5%	8.5	8.0	7.1
4	43.3	49.7	56.0	7.1	1.85	1.95	2.25	0.29	13.7	14.1	13.6	0.78
6	32.0	36.0	43.0	7.6	1.96	2.03	2.34	0.36	8.6	10.3	9.5	2.40
8	32.0	28.0	34.0	7.5	1.81	1.51	1.88	0.43	8.2	7.8	8.4	0.82
10	27.7	24.0	39.0	9.4	0.99	0.84	1.40	0.33	12.5	12.1	11.4	0.69
12	32.3	41.0	46.3	10.9	1.13	1.56	1.72	0.38	13.6	12.7	12.1	0.61

表3.高雄五號室內種子發芽與幼苗性狀顯著性差異比較

Table 3. Significant difference compared on seeds emergence and seedling characters of vegetable soybean cultivar kaohsiung No.5 in the room test.

Item	emergence rate (%)			mean days emergence (day)			height of seedling (cm)			dry weight seedling (gr)			LSD 5%
	LSD	5%	9.5	9.0	8.0	LSD	5%	9.5	9.0	8.0	LSD	5%	
month	9.5	9.0	8.0	9.5	9.0	8.0	9.5	9.0	8.0	9.5	9.0	8.0	
4	23.3	24.7	38.0	5.28	0.76	0.74	1.16	0.15	11.6	12.7	15.3	1.36	0.29
6	25.3	19.3	29.0	8.65	1.12	0.80	1.26	0.41	8.0	9.6	9.0	1.78	0.37
8	21.0	16.7	27.7	8.38	1.08	0.88	1.31	0.47	8.1	8.9	9.2	1.54	0.46
10	18.0	23.0	34.3	6.71	0.58	0.83	1.10	0.21	8.9	7.9	1.2	2.64	0.39
12	18.0	19.7	26.0	9.57	0.56	0.55	0.73	0.30	19.2	17.6	18.4	2.55	0.42

表4.高雄五號田間種子發芽與幼苗性狀顯著性差異比較

Table 4. Significant difference compared on seeds emergence and seedling characters of vegetable soybean cultivar kaohsiung No.5 in the field test.

Item	emergence rate (%)			mean days emergence (day)			height of seedling (cm)			dry weight seedling (gr)			LSD 5%
	LSD	5%	9.5	9.0	8.0	LSD	5%	9.5	9.0	8.0	LSD	5%	
month	9.5	9.0	8.0	9.5	9.0	8.0	9.5	9.0	8.0	9.5	9.0	8.0	
4	22.3	17.0	24.7	7.84	0.93	0.72	1.01	0.37	12.9	13.7	11.5	1.18	0.20
6	7.0	7.3	10.7	5.48	0.37	0.44	0.60	0.29	87	8.1	7.6	1.42	0.39
8	4.0	5.7	5.7	3.08	0.22	0.34	0.31	0.17	8.6	9.2	7.4	2.04	0.38
10	13.0	12.3	8.3	7.62	0.51	0.50	0.27	0.28	10.6	10.9	10.1	1.65	0.43
12	13.0	9.3	13.7	5.05	0.57	0.40	0.54	0.22	11.3	12.0	11.4	1.02	0.42